



DOWNTOWN SUSTAINABILITY ACTION PLAN

Final Report (2020)



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Executive Summary

The Downtown Atlanta Sustainability Action Plan identifies strategies for reducing the environmental footprint of Downtown and creating a healthy and economically strong district. The plan aligns the community with initiatives across the City of Atlanta and the greater Southeast region, define local goals and targets, identify new initiatives unique to Downtown, and integrate sustainability into CAP/ADID's existing suite of programs.

Central Atlanta Progress (CAP) and the Atlanta Downtown Improvement District (ADID) are among the first Urban Place Management Organizations (UPMOs) to develop a sustainability plan at this level of ambition and scope, positioning Downtown Atlanta at the forefront of climate progress. The plan serves as a roadmap for local partners to prioritize sustainability and collaborate on strategies that ensure Downtown remains strong and competitive in perpetuity. The Downtown Sustainability Action Plan includes strategies to increase energy and water efficiency in buildings, support the transition to renewable energy, reduce greenhouse gas emissions from commuting, send less waste to landfill, create robust green infrastructure, increase access to fresh local food, and foster a culture of sustainability.

***Vision:** Downtown Atlanta is committed to impactful climate action and sound environmental policies that increase resilience and lead to a cleaner, greener, healthier way of life for its community.*

Introduction

We are in the midst of significant global and local momentum surrounding sustainability and climate change. The World Economic Forum's 2020 Global Risk Report defined climate change as the most significant global risk, stressing the need for a multi-stakeholder approach to action. Climate change was also named one of the most significant global issues impacting the work of downtown management organizations, in PUMA's 2020 Global Trends Report.

Businesses and cities across the nation are recognizing sustainability as a key ingredient for equitable economic growth and taking action. This momentum catalyzed the City of Atlanta to create the 100% Clean Energy Plan, a plan to transition the City to clean energy sources by 2035. Additionally, many of Central Atlanta Progress' valued members have announced strong commitments to sustainability; these range from highly ambitious goals such as Delta's commitment to carbon neutrality or Coca-Cola's goal of water neutrality, to

foundational practices like energy and water efficiency in both private and publicly owned properties Downtown.

Downtown Atlanta is an economic, cultural and commercial hub, home to 27,000 residents and over 154,000 jobs. With unique assets like the Georgia Aquarium, Center for Civil and Human Rights, 100+ acres of green space, 18.5 million sq. ft of commercial space, and 4 Fortune 500 company HQs, Downtown attracts over 15,000 visitors to the region every year.

Downtown Atlanta is also a major jobs center in the region. As demonstrated in Table 1, Downtown is home to more than 120,000 jobs – four times the size of its resident population and accounting for more than one-fourth of jobs citywide. While it is important to consider energy and water usage in residential properties, the major opportunity in Downtown is to address the non-residential properties.

Residents		Employees	
Residential Population	29,633	Employment Population	120,270
Residents per square mile	8,793	Employees per square mile	35,688

Table 1. Population in Downtown Atlanta

With expected population growth of 2% a year and \$6.4 billion worth of projects under construction or in the pipeline, Downtown faces significant development pressure. Ambitious plans and development projects already aim to activate public space and improve life in Downtown for current and future residents, workers, and visitors; including The Downtown Atlanta Master Plan, and the development of The Gulch and The Stitch, among others. Given the expected pace of growth and change, Central Atlanta Progress and the Atlanta Downtown Improvement District (ADID) have the unique opportunity to make sustainability a priority and set the course for a more sustainable future for Downtown Atlanta.

Existing Conditions

Downtown’s evolution -- from the birthplace of Atlanta, to becoming one of many business districts across the city -- shaped its current environmental footprint. In its early years, before personal vehicle ownership, Downtown grew as a network of small, pedestrian-friendly blocks and building design; these good bones lay the groundwork for an

inherently sustainable community, where a multimodal transportation network can thrive. Mid-century growth brought with it wider streets and highways to fit more cars and larger buildings to accommodate more people; while intended to increase convenience, these resulted in a place that is now inexorably linked to automobile use and has to contend with old buildings that suck up energy and are expensive to retrofit. That growth also buried over natural waterways and wiped out greenspaces.

Downtown is one of the densest areas of the city. Downtown is home to more than 21M square feet of commercial office space alone, not to mention the additional millions of square feet dedicated to retail, hotel, and other commercial uses. There are also many governmental and institutional buildings, while residential takes up a much smaller percentage of the built environment in Downtown. However, in the City of Atlanta, energy consumption by commercial properties is the largest source of GHG emissions in Atlanta; 66% of the energy use in the city comes from our building stock, accounting for 58% of our CO2 emissions. Commercial buildings are the single largest consumer of energy within the city, and as a result, the largest source of polluting emissions in the city. With so much of Downtown dedicated to commercial buildings, this emerges as a major priority for addressing sustainability in Downtown.

The way that the built environment developed in Downtown over time resulted in a lack of greenspace. Downtown has the lowest tree canopy coverage across the City – a meager 3%, compared to an average 12% in comparable cities' Downtowns. Downtown is also greatly lacking in greenspace; the lack of greenspace and tree coverage exacerbates the already challenging situation of hot Southern summers and a high percentage of impervious surface area. Meanwhile, the natural topography of Downtown results in naturally-occurring flooding in some areas of Downtown, while the built environment exacerbates those conditions in some portions of Downtown. This impacts one's experience of Downtown and also impacts communities downstream. Focusing on the urban ecology of Downtown can enhance the experience of Downtowners while also reduce energy usage and create pockets of habitat.

In addition to Downtown's buildings consuming energy and water and taking up space that could provide environmental benefits, the users in those buildings are also generating a lot of waste. Recycling paper and plastic is generally practiced throughout Downtown; recycling glass varies, depending on the waste hauler, and composting is practiced by very few Downtown properties. Diverting these materials from landfills can reduce methane emissions and strengthen the economy by recovering and repurposing valuable commodities.

And finally, the majority of buildings in Downtown are job centers, generating thousands of daily trips per day. Transportation accounts for approximately 31% of GHG emissions in the Atlanta region, the second-largest source of GHG emissions in Atlanta. The Atlanta region's transportation network relies heavily on the usage of personal automobiles as opposed to transit. 58% of Downtown trips (or 315,000 trips per day) are those by single-occupancy vehicles, and future growth is anticipated to add approximately 195,000 daily trips by 2030. 152,755 people commute into Downtown every day; about 2000 people live and work in Downtown, while almost 10k people commute out of Downtown every day. The emissions associated with transportation thus makes it prime for addressing sustainability in Downtown.

Although Downtown is facing some major challenges, Downtown has the potential to be the most sustainable place in Atlanta.

Process

The strategies in the Sustainability Action Plan are based on best practices and input from a range of sources. Research on sustainability initiatives around the country and talking with subject matter experts and professionals from other urban place management districts revealed best practices for designing effective and feasible strategies. In addition, there was an effort to align the strategies in this report with other local plans, notably the City of Atlanta's 100% Clean Energy Plan and the Downtown Atlanta Master Plan, among others.

Stakeholder engagement occurred over a period of six months. CAP engaged an official advisory committee (see: Appendix Table 1), made up of over 30 individuals representing diverse cross-sector interests – from real estate companies to public agencies, and local universities to environmental nonprofits. CAP convened five advisory committee meetings focused on the critical topics in sustainability that form the backbone of the Action Plan; including, Energy and Water Use, Waste Diversion, Transportation, the Natural Environment, and Culture. At each meeting, advisory committee members discussed these topics and made recommendations. Input from the community reflected community priorities as well as opinions from subject matter experts.

Co-Benefits

Sustainability is a broad umbrella, encompassing nearly every aspect of life in Downtown. In creating the plan, the team at Central Atlanta Progress and the Advisory committee applied the triple bottom line approach to sustainability, to ensure that the strategies

addressed not only their environmental impact but also the social and economic effects and benefits. This approach leads to comprehensive strategies that cut through siloes and affect social and economic factors that are key to creating a successful and resilient community.

Though many of the strategies listed in the report below will reduce greenhouse gas emissions, they will also play a large role in strengthening the economic, environmental, and social factors needed to create a greener, healthier, and more livable future in Downtown Atlanta. These additional benefits are referred to as “co-benefits.” For example, the co-benefits of investing in energy and water efficiency and reducing the urban heat island include economic savings from reduced energy use, reduced air pollution, and improved human health and tenant comfort.

By actively communicating the co-benefits of the strategies listed in the report, CAP/ADID can appeal to and catalyze a broad range of stakeholders to work together to make Downtown a better place to live, work, and play for all. The figure below lists several of the transformative impacts of investing in a more sustainable future for Downtown.

CO-BENEFITS OF THE DOWNTOWN SUSTAINABILITY ACTION PLAN								
STRATEGIES	ENVIRONMENTAL			ECONOMIC			SOCIAL	
	<i>Reduced Carbon Emissions</i>	<i>Reduced urban heat island effect</i>	<i>Reduced stormwater runoff & flooding</i>	<i>Increased Property Value</i>	<i>Increased Consumer Satisfaction</i>	<i>Save on utility bill</i>	<i>Improved Health</i>	<i>Educates/ Engages the Public</i>
Invest in energy efficiency in buildings & businesses	X			X		X	~	~
Invest in water efficiency in buildings & businesses	X			X		X	~	~
Invest in stormwater management strategies			X	~		~		
Transition to clean and renewable energy	X	X				~	X	
Plant trees and gardens and implement	X	X	X	X	X		X	X

vertical greening								
Build a culture of sustainability in Downtown					~			X
Promote green and sustainable events	~				~			X
Provide fresh and local food and support urban agriculture	X	X			X		X	X
Advance adoption of smart and reflective surfaces		X	~				~	
Promote recycling and composting					X			X
Support multimodal transportation	X			X	~		X	
Design sustainable streets and streetscapes (i.e., Green Streets)	X	X	X	X	X		~	X

Table 2. Co-benefits of the Downtown Sustainability Action Plan

Equity

A sustainable Downtown Atlanta ensures that all neighborhoods are stronger and more vibrant. The Downtown Sustainability Action Plan aims to include everyone in enjoying a healthier, thriving Downtown community.

It is important to view sustainability through the lens of the triple bottom line — the environment, the economy, and equity. Although the environment is most closely associated with sustainability, this framework cannot function without all three pillars.

The strategies in the Downtown Sustainability Action Plan were crafted with equity in mind, however, there is still work to be done to strengthen this. CAP/ADID are currently in the process of examining the role of equity across its of programs and projects, including those incorporated here in the sustainability plan. Therefore, some of the strategies presented in this plan may be revised, or new ideas added, to reflect CAP/ADID’s work in regard to equity.

Strategies

TABLE OF STRATEGIES
Energy and Water Use in Buildings and Businesses
Strategy 1.1: Supporting building owners and managers with compliance with the Commercial Buildings Energy & Water Efficiency Ordinance (CBEEO) through outreach and education
Strategy 1.2: Supporting small and medium-sized businesses with energy and water efficiency efforts through outreach and education
Strategy 1.3: Create a student training program to support small and medium-sized businesses with energy and water efficiency
Strategy 1.4: Evaluate water saving measures and lighting in properties maintained by CAP/ADID
Energy and Water Use Policy
Strategy 1.5: Create resources for Special Administrative Permit (SAP) applicants
Strategy 1.6: Explore changing the Downtown Special Public Interest District (SPI-1) zoning regulations
Strategy 1.7: Collaborate with the City of Atlanta on the plan to advance the 100% Clean Energy Plan
Strategy 1.8: Promote net positive energy and water
Strategy 1.9: Explore a microgrid or offsite solar farm
Strategy 1.10: Explore a stormwater utility pilot
Strategy 1.11: Explore financing options and alternative funding sources for large-scale, multi-partner projects that can advance energy and water management
The Natural Environment
Strategy 2.1: Develop and implement the strategy for planting new trees and implementing vertical greening
Strategy 2.2: Develop an urban forest guide for CAP/ADID and private property owners
Strategy 2.3: Promote and support native, natural habitat and beneficial gardens
Strategy 2.4: Explore large infrastructure that can relieve pressure on the combined sewer system
Strategy 2.5: Advocate for updating the Post-Development Stormwater Management Ordinance

Community & Culture
Strategy 3.1: Focus efforts on building a culture of sustainability in Downtown through stakeholder engagement
Strategy 3.2: Recognize Downtown stakeholders for their sustainability efforts
Strategy 3.3: Tell the story of sustainability in Downtown
Strategy 3.4: Create a Green Events Guide
Strategy 3.5: Promote and support efforts to provide fresh and local food in Downtown
Strategy 3.6: Advance adoption of smart and reflective surfaces to reduce the urban heat island effect, by updating the SPI-1 zoning code requirements and painting dark roofs
Waste Diversion
Strategy 4.1: Pilot composting at CAP/ADID events in Woodruff Park
Strategy 4.2: Promote the reduction of single-use materials in local businesses
Strategy 4.3: Create standardized labeling for recycling, compost, and landfill bins across Downtown buildings and businesses
Transportation
Strategy 5.1: Advance clean and resilient commuting by supporting a multimodal transportation system
Strategy 5.2: Design streets, streetscapes and other surfaces with sustainability in mind

Table 3: Action Plan Strategies

Energy and Water Use and Management

In the City of Atlanta, buildings account for 66% of energy use and 58% of CO2 emissions (atlantabuildingefficiency.com). In 2011, the Atlanta Better Buildings Challenge (ABBC) was initiated to reduce building energy use. Nearly all the largest buildings in Downtown participated, achieving their goal of saving at least 20% of their annual energy and water usage. However, CAP/ADID will continue the effort to promote efficient and cost-effective use of energy and water in Downtown buildings.

There are many important reasons to track energy and water usage and invest in efficiency upgrades. Buildings that invest in improvements to energy and water efficiency can enhance their property value and save money through reduced utility bills. Reducing

overall energy use decreases demand at power plants, which subsequently reduces greenhouse gas emissions and improves the quality of our air and water. Similarly, reductions in water use lessens the strain on natural water sources, and reduces the cost of piping, pumping and treating water. These effects decrease the potential of system-wide shutdowns and revenue loss and save consumers and businesses millions of dollars in costs and risk.

Energy and Water Use – In Buildings and Businesses

There are many ways to reduce energy and water usage in Downtown Atlanta. Strategies can fall under a few buckets:

- Outreach and Education
- Technical Assistance and Training
- Policy Interventions

Strategy 1.1: Supporting building owners and managers with compliance with the Commercial Buildings Energy & Water Efficiency Ordinance (CBEEO) through outreach and education

In 2015, the City of Atlanta passed the Commercial Buildings Energy & Water Efficiency Ordinance (CBEEO) to reduce emissions while saving the commercial sector money. According to the CBEEO, owners of commercial and multifamily buildings over 25,000 square feet are required to comply with the actions outlined below in Table 3.

Requirements		How often?
Benchmarking	Track building’s energy and water consumption	Annually
Transparency	Submit benchmarking data to the City	Annually
Energy Audit <i>(Water Audit required starting in 2020)</i>	Recommendations on how to improve building’s efficiency and operations	Every 10 years

Table 3. Requirements of the City of Atlanta’s Commercial Buildings Energy & Water Efficiency Ordinance

487 (72,000,000 sq ft.) in Downtown are required to submit their benchmarking data to the City annually and conduct energy and water audits every 10 years. As of February 2020, compliance stood at 55% of total square footage covered by the CBEEO, meaning only 104 out of 487 buildings in Downtown have submitted their benchmarking data.

Many Downtown buildings that have been benchmarking and investing in energy efficiency improvements for years still fail to report their data to the City and complete the required audits. This is a missed opportunity for Downtown buildings and businesses to make energy and water efficiency a public priority and fully capitalize on the economic savings and public health benefits of energy and water efficient building stock.

Because compliance with the audit requirement is particularly low, there is a need to educate property owners and managers on the benefits of conducting energy and water audits. CAP/ADID can support the City in advancing compliance with the ordinance by conducting outreach and connecting the City with property contacts. Advisory Committee members shared a desire to aim for 100% compliance with the CBEEO in Downtown. This would position Downtown to pilot outreach strategies and share best practices that can be replicated throughout the City.

Outreach strategies may include electronic communications, promotion at select CAP/ADID events, and targeted outreach to specific properties. For example, CAP/ADID could collaborate with a number of different partners to reach Downtown building owners and managers, including the Atlanta Apartment Association, BOMA, IFMA, ASHRAE, Southface, Commercial Real Estate Developers Association (NAIOP), the Atlanta Commercial Board of REALTORS. These strategic partnerships will enable CAP/ADID to target outreach to property owners and managers in spaces where they already visit, rather than expect property contacts to find and pursue compliance information independently. In some cases, CAP/ADID can conduct educational programming in partnership with preferred vendors.

Outreach and education could scale from low-entry to more involved tactics:

- Host technical educational programs focused on specific, technical issues in energy and water management (e.g., optimizing building systems for efficiency). These could take the form of workshops, webinars, or other types of events.
- Provide opportunities for property owners and managers to learn about and network with vendors that provide energy audits and building assessments
- Convene regular “Downtown Facilities Forums” to build relationships and share information between building owners, managers, and other local stakeholders
- Mobilize friendly competition among building owners by featuring a high-performing building in a membership newsletter, with notes on how other building owners can undertake similar actions, or even set up a prize for recognition.

- Support the creation of incentives for compliance, like providing free audits as a CAP membership benefit or identifying partners willing to provide discounted audits.
- Create a bulk purchasing program for retrocommissioning, similar to the Solarize model, to increase accessibility and affordability of energy efficiency upgrades through partnering with a preferred vendor to provide a discounted energy assessment or lighting upgrades.
- Connect buildings to pre-existing resources, like Southface Institute’s Good Use Grants to Green initiative or their CBEEO Help Desk, which respectively provide financing to local nonprofits for energy efficiency upgrades and offer technical assistance for benchmarking energy and water use.

CAP/ADID can also work to promote the value of energy efficiency by ensuring that building performance data is accessible. Releasing reports and maps that present energy use, economic savings, and associated emissions reductions from energy efficiency can work to facilitate market transformation. For example, CAP/ADID could support the creation of a color-coded online portal or map that visualizes the energy and water efficiency of Downtown buildings to enable building owners, property managers, prospective buyers, and other stakeholders in the real estate market to consider efficiency in their investment decisions.

Another unique opportunity to equitably support compliance is to invite the lowest-performing buildings to a session where an expert can walk them through the cheapest and easiest opportunities for energy and cost savings, such as lighting retrofits and basic weatherization measures. For buildings with a low ENERGY STAR score, there are often opportunities to realize rapid energy cost savings through implementing relatively simple changes. CAP/ADID could also hire an “on call” service provider who could be available to provide consultation and help with light-touch audits or walkthroughs, so that low-performing buildings can take action to achieve savings without going through the rigorous ASHRAE Level 2 audit before their required audit year. CAP/ADID should maintain regular communication with the staff members who work on energy initiatives at Mayor’s Office of Resilience staff to understand the challenges and how best to play a role in advancing compliance.

Strategy 1.2: Support small and medium-sized businesses with energy and water efficiency efforts through outreach and education

Downtown Atlanta boasts 813 dynamic shops and restaurants that attract significant commercial and retail activity. Investing in energy efficiency in Downtown’s small businesses generate many environmental, social, and economic benefits for both the

individual business and the larger community. For example, investing in weatherization, or “weatherproofing”, increases comfort by protecting a building and its interior from the elements, reduces energy use, and ultimately lowers energy cost. Business owners can reinvest utility bill savings into building upgrades or improvements to service quality in order to remain economically competitive and attractive to Downtown users. Small businesses that are more energy and water efficient will be protected from rising energy prices and be more resilient to other unexpected stressors. Investing in our small business community will contribute to building a healthier and more prosperous downtown.

Outreach and education efforts aimed at increasing awareness of the benefits of energy and water efficiency for local businesses could scale from low-entry to more involved tactics:

- Awareness-building campaign to building owners and managers associated with local businesses
- Technical educational programs focused on specific, technical issues (e.g., optimizing building systems for efficiency) in the form of webinars, workshops, or other events. These could be structured to provide hands-on learning that allows attendees to actively engage with instructors in order to gain insight and understanding regarding energy and water management.
- Opportunities to network with vendors, such as companies that provide energy audits and building assessments
- Convene regular “Downtown Facilities Forums” to build relationships among and share information between business owners and managers, building owners and managers, and other local stakeholders

Strategy 1.3: Create a student training program to support small and medium-sized businesses with energy and water efficiency

Downtown is home to Georgia State University (GSU). CAP/ADID can partner with GSU to create a program to train students in performing energy audits and other assessments to help businesses understand the savings they can gain from implementing energy and water efficiency upgrades. Emory University is currently working on a similar program, which could be used as a model for the Downtown program.

Students can develop a toolkit to conduct comprehensive audits that include energy, water, waste, transportation, and purchasing practices. They could focus their services on small minority-owned businesses as well as businesses located in older buildings, where owners might benefit most from affordable audits. A rubric, similar to the one provided by GSU Office of Sustainability’s Green Office Certification program, could be constructed to

provide an overall score that indicates a business's level of commitment to sustainability. Local businesses would be consulted during the development of the audit toolkit to ensure that it is useful, appropriate, and affordable.

Prior to implementation, research can be conducted to determine whether affordable and accessible auditing options already exist, to avoid duplication of efforts.

Strategy 1.4: Evaluate water saving measures and lighting in properties maintained by CAP/ADID

The Atlanta Downtown Improvement District (ADID) does not own any property, but it does engage in maintaining the safety and cleanliness of Downtown. This includes cleaning the streets and sidewalks, maintaining streetscaping, and in some cases, managing waste and recycling in the public right of way. ADID also maintains Woodruff Park, a City-owned park located in the heart of Downtown. In order to operationalize sustainability in these public maintenance efforts, CAP/ADID can internally adopt the recommendations from the Atlanta Regional Commission's (ARC) [Green Communities Program](#), a voluntary certification program traditionally aimed at increasing capacity for local governments to reduce environmental impact at both an operational and community-wide level.

Implementing water savings measures will reduce the amount of water that ADID operations use for maintenance and cleaning. First, an assessment can be conducted to understand areas for improvement. From there, CAP/ADID would determine appropriate measures, such as using reclaimed water for maintaining street plantings, Woodruff Park, and eliminating graffiti.

ADID also works with the City on a range of public infrastructure projects. While many of the streetlights in Downtown were already upgraded to LED lighting, CAP/ADID can invest in upgrading any remaining bulbs.

Energy and Water Use - Policy

Policy has the potential to integrate sustainability considerations, including high performance building upgrades, in all phases of development, from design through construction. CAP/ADID can take many approaches to leverage policy in order to catalyze investment in energy and water efficiency; including updating Downtown zoning requirements and the Post-Development Stormwater Management Ordinance.

Strategy 1.5: Create resources for SAP applicants

Downtown is located in the Special Public Interest-1 (SPI-1) zoning district. Constructing a new building or rehabilitating an existing building requires a Special Administrative Permit,

and the SPI-1 Development Review Committee (DRC) is often involved in the process of reviewing the application, providing input to the designer or building owner regarding the design of the project. This process presents an opportunity to introduce and promote sustainable construction to SAP applicants. Therefore, CAP/ADID can develop resources that present SAP applicants with sustainable options for meeting stormwater management and other infrastructure requirements. Resources could include:

- A checklist, or scorecard on green building design that outlines options and benefits of environmental considerations like installing a green roof
- Analysis on the financial and property value impacts of installing energy and water efficient fixtures and other efficiency improvements
- Pointers on how to offset costs for efficient fixtures and equipment
- One-on-one guidance on design for high performance buildings
- New incentives and financial tools for sustainable construction, e.g., work with Fulton County and Invest Atlanta to create special standards for subsidized building projects

Livable Buckhead (LBI) created a survey for SAP applications that lists green design options. CAP/ADID can partner with LBI and other SPI district coordinators and City staff to develop a more robust guide to sustainable building design that could serve as the default resource throughout the City.

Strategy 1.6: Explore changing the SPI-1 zoning regulations

Changing the zoning regulations can be a very impactful way of addressing energy and water consumption in Downtown. CAP/ADID can convene a diverse group of stakeholders to explore the changing the zoning regulations in favor of environmental design. Changes could include requiring the following measures:

- Energy and water efficiency upgrades like motion sensor/timed LED lights and water saving flush valves
- Onsite water reclamation infrastructure, and onsite storage and gradual release to reduce stormwater impacts.
- Green roofs, and other green infrastructure components like rainwater collection and reuse.

Strategy 1.7: Planning to Advance the 100% Clean Energy Plan

In 2019, the City of Atlanta approved a plan to move the city towards 100% clean energy. CAP/ADID can collaborate with the City, Downtown stakeholders, and subject matter experts to identify measures to advance the plan's goals. A critical step in this process is taking a deep dive to understand the strategies that are appropriate and feasible for the

larger, high-rise buildings in Downtown, due to their increased energy and water use. For example, rooftop solar has proven to be challenging in urban areas in Atlanta, so it is worth taking the effort to understanding the barriers in order to find viable solutions.

Strategy 1.8: Promote net positive energy and water

Energy and water efficiency are critical to the economic health and vitality of Downtown Atlanta. In order to respond to the risks posed by climate change, however, we need to work towards net positive energy and water in buildings. A building is net positive when it creates more water or energy than it uses. Only a handful of buildings in the region are currently net zero, and even fewer are net positive. But, in order for Downtown Atlanta to prepare for the future, it's important to raise the bar.

CAP/ADID can enhance the outreach and education for energy and water efficiency mentioned in Strategies 1.1-1.3 by also incorporating information regarding net positive energy and water strategies; including, building design, renewable energy, and onsite water capture and treatment systems. Outreach efforts can also include advocating for large new developments to include net zero energy or water goals, such as the Stitch or the Gulch.

Strategy 1.9: Explore a microgrid or offsite solar farm

Rooftop solar has proven challenging for Downtown. As an alternative, CAP/ADID can partner with technical experts to explore feasibility and options for a microgrid or an offsite solar farm to improve resilience and energy reliability in Downtown. Downtown institutions, like Georgia State University and Grady Hospital, might be interested in participating in a pilot of these innovative renewable energy projects to increase safety in the event of a power outage. CAP/ADID can also explore funding options for a demo project including grants from local foundations and the U.S. Department of Energy.

Strategy 1.10: Explore a stormwater utility pilot

The City of Atlanta does not have a dedicated funding source for managing stormwater at this time. A stormwater utility fee could generate revenue to fund the City's stormwater management plan. CAP/ADID can explore the feasibility of this project. Downtown is an ideal location for a pilot of a stormwater utility because the largest area of the combined sewer system exists in our community.

Political and community support for this measure is mixed; in the interest of equitably distributing the responsibility to manage stormwater, community stakeholders recommended assessing fees based on a property's impact on the surrounding area. Stakeholders also suggested integrating stormwater management strategies into the Gulch development, a prime testing ground for the proactive integration of sustainable

design in new Downtown developments. In order to incentivize developers, stakeholders suggested assigning temporary exemptions from fees for new developments that include green stormwater management strategies from the initial design phase. The feasibility of this project should be explored.

***Strategy 1.11:** Explore financing options and alternative funding sources for large-scale, multi-partner projects that can advance energy and water management*

Many of the strategies identified in this “Raising the Bar” section are important yet costly to undertake. CAP/ADID can collaborate with partners to explore opportunities to finance these improvements.

The Natural Environment

Restoring and enhancing the natural environment in Downtown provides a multitude of benefits. Trees and vegetation clean up our air, cool our streets, and enhance the look and feel of Downtown. They also play a role in carbon sequestration, air quality, the urban heat island effect, and quality of life. Green infrastructure has similar benefits. Installing green infrastructure will create a more resilient Downtown environment by reducing flooding impacts and beautifying the surrounding area, among other benefits.

Trees and Vegetation

***Strategy 2.1:** Develop and implement the strategy for planting new trees and implementing vertical greening*

The Downtown Atlanta Master Plan set a goal of planting 10,000 new trees. Community stakeholders with expertise in urban forestry recommend breaking this ambitious goal down into short-term planting targets to demonstrate incremental progress and increase local support. CAP/ADID have partnered with Trees Atlanta to create a Downtown Tree Planting Plan, to determine the optimal locations for tree planting in Downtown, based on factors like the underground conditions and where trees could provide the greatest economic and social impacts; this work is underway and anticipated to be completed by the end of 2020.

The green infrastructure and vertical greening strategies that focus on the Downtown Connector have the potential to mitigate flooding, which is not only a current hazard but will become increasingly important due to the expected effects of climate change on the severity of rain events. CAP/ADID will use a horticultural approach to select effective and visually appealing plant materials for vertical greening and green infrastructure.

The following strategies and planting locations were identified in the “Greening the Connector” study as well the Downtown Atlanta Master Plan:

- Plant urban forests to serve as identifying elements for the City, such as:
 - Connector/Freedom parkway interchange
 - I-20/75 interchange
- Install vertical greening in places that can't support forest, or places that have natural flooding
 - Downtown Connector along Grady curve south of Freedom Parkway
 - Downtown Connector around Civic Center MARTA station
 - Five Points MARTA Station
- Plant green gateways with a combination of trees and vegetation in order to signify the entrance into Downtown
 - Connector/Freedom parkway interchange, I-20/75 interchange
 - Auburn and Edgewood Avenues
 - West side
 - International Boulevard
 - Central Ave
 - Memorial Drive Greenway
- Increase greenspace to serve as open space for leisure and activity
 - Memorial Drive Greenway over the connector
 - open space adjacent to the Williams Street exit
 - "blah-za's" (ie, public spaces/plazas that are underutilized and unappealing)



Fig 2. Examples of vertical greening

It is important to be thoughtful about clustering trees. Clusters could be sited in areas that attract high commercial density and foot traffic in order to capture the imagination of Downtown residents, workers, and visitors. They could also be located in areas with

vulnerable or disadvantaged populations, to ensure an equitable approach. They can also be sited in places that provide the biggest “bang for the buck” :high density areas that present unique opportunities for piloting green infrastructure and mitigating flood effects include: The Stitch, Memorial Drive, the Gulch development, Herndon Homes, and the Georgia Tech campus.

The Downtown Atlanta Master Plan identified 35 acres of ‘blah-zas,’ or underutilized public spaces/plazas that are often covered by impervious pavement. As Downtown already demonstrated interest in retrofitting ‘blah-zas,’ there is a unique opportunity to install green infrastructure features to reduce runoff in tandem with aesthetic improvements. Blah-zas could be transformed into rain gardens or upgraded with permeable hardscaping (materials that absorb water), such as the permeable pavers used in the [green alleys](#) in Los Angeles and Chicago.

There are also plans to add a living wall at 76 Forsyth Street in conjunction with the new Arts and Entertainment District screen installations and mural painting. Signage should be included at this location describing the impact of vertical greening on cooling the surrounding property and enhancing the comfort and attractiveness for pedestrians.

***Strategy 2.2:** Develop an urban forest guide for CAP/ADID and private property owners*
CAP/ADID will work with local parts to develop a best practice guide or plan to support CAP/ADID and private property owners in following best practices for planting and maintaining a diverse and healthy tree canopy.

Stakeholders recommended that CAP/ADID work with the Design Review Committee (DRC) begins to provide guidance to developers on strategies to promote successful tree planting; including, input on the time of year for planting, techniques for preparing a site, and recommendations for heat resistant trees and adaptive plant species. For example, the Downtown Atlanta Master Plan recommends exploring locations for fruit trees to generate a local food source and oak trees are an optimal species to promote pollinator health. In order to build a healthy and resilient urban forest, it is critical to adhere to precise and intentional selection and placement of diverse plants along with appropriate soil volume. Techniques, such as modular tree wells, also support healthy trees in harsh Downtown environments. CAP/ADID will also work with the DRC to evaluate the impact of changing their policies to promote urban greening, like requiring a certain amount of greenspace in the existing open space requirements, or alternatively, requiring buildings to plant a certain number of trees using a designated soil volume.

Strategy 2.3: *Promote and support native, natural habitat and beneficial gardens*

In addition to trees, there are also many opportunities in Downtown for gardens. There are a variety of ways to design gardens that provide ecological benefits, such as:

- Rain gardens – designed to reduce runoff and flooding, and filter pollutants carried in stormwater runoff
- Pollinator gardens – designed and planted with specific nectar and pollen producing plants, in a way that attracts pollinating insects
- Xeriscaping - designed to maximize the use of native, drought-resistant plants in arrangements that reduce energy and water usage.

These garden designs, and education on conserving water for landscaping, can help manage stormwater flow, provide habitat, support pollination, and reduce the amount of water required to maintain the garden. CAP/ADID along with private, institutional, and governmental property owners can employ these landscaping and gardening practices to the plantings they manage throughout Downtown.

Water and Green Infrastructure

A high percentage of Downtown is impervious surface area, particularly in the heart of the central business district. As demonstrated by Figure 3, impervious surface area contributes to stormwater runoff and the urban heat island effect.

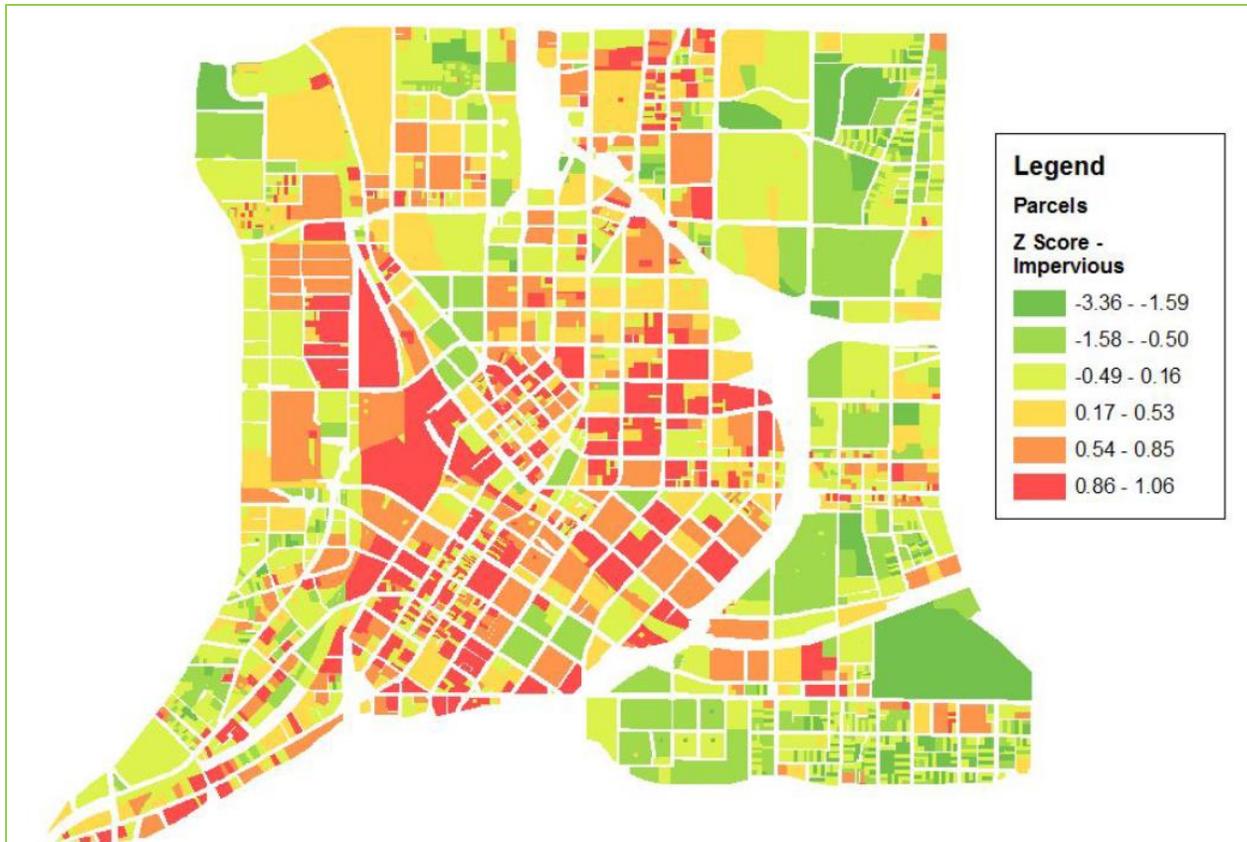


Fig 3. Parcel-level impervious surface area in Downtown (Source: Georgia Tech 2018 Sustainable Cities Studio)

Strategy 2.4: *Explore large infrastructure that can relieve the pressure on the combined sewer system*

It is particularly important to address water in Downtown Atlanta because Downtown is served by a combined sewer system, meaning the sewage and stormwater are combined into one large sewer pipe and carried together to a water reclamation center for treatment. This poses issues during heavy rains, when stormwater flows can exceed the capacity of the combined sewer pipe. The Atlanta sewer system was upgraded so that combined flow is diverted to one of seven CSO control facilities. When the rains exceed the treatment capacity of the CSO control facilities, screened and disinfected flows are discharged to a nearby stream or creek. Reducing stormwater flow by capturing water onsite before it flows into the sewer system is therefore an important strategy for Downtown, as it can mitigate problems occurring downstream.

CAP/ADID can explore opportunities to facilitate investment in large-scale infrastructure that could relieve the pressure on the sewer system. For example, a central catchment system could be installed at Woodruff Park to collect and reuse rainwater from adjacent properties for ADID operations. A catchment basin would reduce the amount of water

flowing into the CSO, which reduces costs to the City. CAP/ADID can also evaluate the feasibility of making Woodruff Park a net zero water facility. Stakeholders also suggested that CAP/ADID explore financing opportunities for stormwater management, such as the Georgia Environmental Protection Division's (EPD) 319H nonpoint source grant.

Any green infrastructure plan pursued by Downtown stakeholders should reflect the priorities established in the Georgia Environmental Protection Division's (EPD) [nonpoint source plan](#), in order to position the project for EPD funding.

Strategy 2.5: Advocate for updating the Post-Development Stormwater Management Ordinance

The Post-Development Stormwater Management Ordinance established minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality. The ordinance's Runoff Reduction requirement establishes that projects must treat the first 1.0' of stormwater runoff with green infrastructure. Increasing the minimum amount of green infrastructure required by the ordinance would further reduce stormwater flow and relieve the burden on the Downtown sewer system. This is an immediate concern that CAP/ADID plans to advocate in the short-term, as the ordinance is already in the process of being updated.

Community & Culture

In addition to focusing on natural resources, a comprehensive sustainability plan should also examine and address the human element of the Downtown community – that is, how people experience Downtown, and the role of residents, employees, and visitors in advancing sustainability initiatives. Increasing local food access and reducing the severity of the urban heat island effect are among several strategies to enhance comfort and livability for Downtown residents, employees, and visitors.

Culture

All of the strategies within the Sustainability Action Plan aim to reduce the environmental footprint of Downtown Atlanta. The long-term success of this work relies on support from a range of stakeholders. Integrating sustainability into the culture is a process that requires dynamic partnerships across sectors. This process will strengthen local buy-in and the likelihood of a project's success.

Strategy 3.1: Focus efforts on building a culture of sustainability in Downtown through stakeholder engagement

CAP/ADID can leverage its unique network and role in the community to recognize, amplify, and strengthen sustainability initiatives through marketing and providing

resources to build capacity, such as value-added programming and a platform for networking and sharing knowledge.

Psychologists have found that highlighting successes is a more effective method to create shared values and norms than stating facts. As a result, CAP/ADID can use events as a vehicle to raise awareness, share knowledge, and celebrating successes in the sustainability space. Along with local partners, CAP/ADID will invite subject matter experts to speak at “expert dialogue sessions” on sustainability issues.

Engaging CAP membership is another key avenue for advancing sustainability in Downtown. CAP can establish a Sustainability Council to bring value to CAP members interested in aligning their priorities and interests with the sustainability goals for Downtown.

To support the efforts of those involved in implementation (such as those who will be responsible for implementing energy and water efficiency measures), CAP/ADID also could establish a “Downtown Facilities Forum” to provide education and support for Downtown facilities personnel and property managers in implementing sustainability initiatives. The first step is understanding their needs and perspectives and then developing strategies to meet those needs.

And finally, CAP/ADID can develop creative engagement strategies to involve Downtown stakeholders who may not be in a position to invest in a major project, but could still make small, yet meaningful steps toward promoting sustainability. For instance, CAP/ADID could host educational events focused on recycling, composting, or alternative transportation to connect the thousands of employees and residents who work and live in Downtown to sustainability.

Strategy 3.2: Recognize Downtown stakeholders’ sustainability efforts

Recognition is an important element of motivating Downtown stakeholders. For example, CAP/ADID could create awards to honor sustainability leaders, run a promotional campaign, or display signage, such as plaques or banners that highlight the sustainability efforts of Downtown properties and businesses.

Midtown Alliance modeled a similar approach with their [EcoDistrict Luminaries](#) program, celebrating businesses, buildings, and organizations that demonstrate a strong commitment to green practices. Participants in the Luminaries program are rated and recognized as Green or Gold Level based on points earned from a sustainability checklist.

The key is identifying what is important to Downtown stakeholders and tailoring it accordingly.

Strategy 3.3: Tell the story of sustainability in Downtown

Building a culture can also be fostered by messaging. Leverage the power of branding through designating a Downtown “Green Zone” will serve to inspire the imagination of Downtowners, as well as to attract property owners and businesses that value sustainability. Downtown should become “Green Central” – the place where new green technologies are installed, property owners and businesses aim for highest possible standards of sustainability, and events are as low-waste and low-impact as possible.

When developing messaging, it is important to consider the needs and motivations of different audiences. For example, business and property owners are likely to respond positively to a story that emphasizes the economic benefits of sustainability strategies. CAP’s existing Marketing Committee is a great resource for developing and improving the story of sustainability in Downtown.

Other ways of telling the story of sustainability in Downtown revolve around education and raising awareness by finding building owners and tenants that are interested in partnering on visible expressions of sustainability in and around their buildings. For instance, Downtown lies at the convergence of several waterways. CAP/ADID can work to elevate those waterways by using signage and art to let people know what is there and educate them on natural resources. The recent Finding the Flint initiative serves as a successful case study for using signage and other messaging efforts to promote awareness of local waterways. Additionally, creating a route for walking and self-guided tours along with a guide to local assets can educate people on the environmental and ecological history of Downtown. Many cities partner with the American Society of Landscape Architects (ASLA) to create City and Regional [guides](#) that highlight landscape architecture through interactive digital maps. CAP could work with the Georgia Chapter of ASLA and/or the student chapter at UGA’s College of Environment and Design (CED) to create a Landscape Architect’s Guide to Atlanta.

Community

Strategy 3.4: Create a Green Event Guide

Downtown is the epicenter of events and attractions in Atlanta. CAP/ADID can develop a green event planning guide and encourage event organizers to adopt green practices.

Strategy 3.5: Promote and support efforts to provide fresh and local food in Downtown

A local food system reduces greenhouse gases associated with transportation, supports the local economy, and provides people with healthy, fresh food. CAP/ADID are committed to increasing access to fresh and local food and supporting the City's goal of eliminating food deserts in Downtown over the next 2-3 years. In order to leverage partnership and current traction on this issue, the strategies listed below should align with the City of Atlanta's fresh food access plan.

Downtown Atlanta can support the market for locally grown food in a variety of ways, such as:

- Coordinating with farms that offer Community Supported Agriculture (CSA) programs to add drop-off locations in Downtown. Locations could include places that are centrally located and/or near a significant employment place, like Woodruff Park, Peachtree Center, a government building in the government district, and the CNN Center.
- Partnering with Invest Atlanta in their effort to drive CSA membership for individuals and local restaurants by hosting "farm days" at MARTA or Sweet Auburn Curb Market, as well as repurposing green kiosks to become pop-up markets or CSA drop-off locations.
- Expanding and raising awareness of the raised garden beds at Five Points MARTA station.
- Exploring opportunities to increase access to locally-grown food; including expanding locations for the Green Market, a farmer's market held every Thursday at Peachtree Center.
- Finding partners interested in vertical farming or hydroponics operations
- Branding fresh food access initiatives as "AgLanta Grows Downtown" could leverage the momentum of the AgLanta Grows-A-Lot program

It would also be beneficial to partner with Georgia State or Grady in order to quantify the public health benefits along with the economic and ecological impacts of these strategies.

Strategy 3.6: Advance adoption of smart and reflective surfaces to reduce the urban heat island effect, by updating the SPI-1 zoning code requirements and painting dark roofs

The Urban Land Institute's 2019 report "[Scorched: Extreme Heat and Real Estate](#)" projects that communities, like Downtown Atlanta, will experience more extreme heat days, longer and more frequent heat waves, and intensified urban heat islands as the impacts of climate change progress. Additionally, the urban heat island effect increases the prevalence of asthma, as the increased temperature stimulates the growth of asthmatic

irritants, like fungi and pollen. In partnership with Downtown stakeholders, CAP/ADID can explore opportunities to invest in strategies to reduce the urban heat island effect, promote cooling and maintain quality of life in Downtown.

The strategies previously listed in this document – planting trees and other vegetation, investing in green roofs and green infrastructure – are all key strategies for reducing the urban heat island in Downtown.

Promoting reflective surfaces – and other [smart surfaces](#)– is another critical piece of mitigating the urban heat island. CAP/ADID can educate Downtown building owners and property managers on cooling strategies, like creating an initiative around repainting dark roofs with lighter colors to promote reflectivity and reduce heating. Additionally, CAP/ADID will consider updating the SPI-1 zoning regulations to require reflective surfaces “heat-aware” building envelopes, and heating, ventilation, and air conditioning (HVAC) choices that stabilize indoor temperatures, even during power outages. CAP/ADID can also assess funding opportunities to offset the cost of installing heat mitigation technologies. Downtown areas that present locations for piloting heat reduction strategies include: The Stitch, Memorial Drive, the Gulch development, Herndon Homes, and the Georgia Tech campus.

Waste Diversion

Responsible materials management is a cornerstone of sustainability. Diverting waste from landfills reduces methane emissions and strengthens the economy by recovering and repurposing valuable commodities. Waste diversion also reduces disposal costs and the space burden on landfills. Landfills are designed to prevent water, oxygen and sunlight from entering, so buried materials break down slowly and inefficiently—even materials marked “biodegradable” or “compostable.” By choosing to reuse, recycle and compost, we add value to our “waste” and invest in the future of our community and our local economy.

Promote Zero Waste in Downtown

Waste diversion involves focusing on tactics like source reduction, recycling, reuse, food recovery, and composting. Source reduction can take many forms, such as reducing procurement of single-use materials. Recycling for reuse has significant potential economic benefits, like reducing waste disposal costs, saving landfill space, and creating jobs. Food recovery and composting capture the value of organic waste, while diverting these materials from the landfill. A zero-waste approach would involve all of these strategies.

Strategy 4.1: Pilot composting at CAP/ADID events in Woodruff Park

In Detroit, the Downtown BIZ requires their food truck vendors to use compostables for customers. CAP/ADID can partner with Compost Now to have compost available to divert food waste during Food Truck Friday and Wine in Woodruff Park events. CAP/ADID can also find partners such as student volunteers from Georgia State University to assist customers with understanding what materials are compostable.

Strategy 4.2: Promote the reduction of single-use materials in local businesses

In order to promote reusable items and reduce procurement of single-use materials, the Downtown Vancouver Improvement Association created and sold reusable coffee mugs along with a map listing local businesses that would fill the mugs. CAP/ADID will use a similar approach and create and sell “ATL DTN Green” merchandise (e.g., coffee mugs, Tupperware, utensils, canvas bags). CAP/ADID could partner with Downtown retailers to provide a discount for users of ATL DTN Green items. With more customers using branded reusable items, retailers would save money on buying disposable items.

Policy also plays an important role in reducing procurement of single use materials and promoting responsible materials management. For example, many municipalities around the nation have pursued plastic bag bans. In 2019, Fulton County initiated a compostable ware ordinance that requires buildings and local businesses to procure compostable items. Coca-Cola’s World Without Waste program positions the company as an ideal corporate stakeholder to engage in this effort.

Restaurants and retailers frequently procure single-use items. However, requiring businesses to purchase compostable or reusable items for customer use is not always financially viable, particularly for small businesses. It is critical to consider equity in this effort, as businesses of different sizes face unique financial constraints. As a result, CAP/ADID will assess the opportunity to reduce single-use procurement by engaging restaurants and retailers in a conversation around Styrofoam, disposable takeaway containers, plastic bags, utensils, etc. Initiating a dialogue will shed light on ways that businesses can reduce single-use items without negatively impacting their bottom line.

Stakeholders shared the concern that bodegas and other small businesses offer plastic bags. One way to reduce waste would be to encourage these businesses to give customers the option to opt out of a plastic bag to-go bag or to only offer plastic bags to customers who request them. Additionally, piloting a small charge for plastic bags would incentivize the use of more sustainable options. The money raised from a plastic bag charge would be allocated to a local program or service, and ADID could consider matching the funds raised.

CAP/ADID can also explore piloting a Sustainable Restaurant program that certifies and celebrate restaurants that pursue zero waste and other sustainable materials management practices. Certifying local restaurants as “sustainable” could differentiate them in the market and create demand from consumers that value sustainability.

In order to reduce the burden of additional costs associated with sustainability, CAP/ADID could initiate a conversation on bulk purchasing and other cooperative agreements for sourcing sustainable materials with local restaurants. As momentum builds, CAP/ADID will consider hosting a vendor fair for sustainable utensils and packaging materials. Sweet Auburn Curb Market vendors committed to a cooperative agreement to buy their sustainable materials from the same supplier in order to achieve collective savings. This approach also offers an opportunity to include unified branding on the materials. Additionally, CAP/ADID can support buildings in developing effective language for their procurement contract in order to hold a vendor accountable to sustainability commitments.

***Strategy 4.3:** Create standardized labeling for recycling, compost, and landfill bins across Downtown buildings and businesses*

Due to a lack of public awareness and education around waste sorting, there is a high level of material contamination in bins. Contamination, meaning that waste was sorted into the incorrect bin, increases the fees associated with recycling. CAP/ADID can work to alleviate this concern by developing standardized labeling that includes pictures of common materials that should be sorted into each bin. Recycle Across America provides an excellent toolkit and materials to support this effort.

Transportation

Transportation accounts for approximately 28% of our national greenhouse gas (GHG) emissions; it's slightly higher in the Atlanta region, where transportation accounts for 31% of GHG emissions. The intense climate impact along with the critical impact of mobility on quality of life, particularly that of vulnerable populations, make transportation an essential piece of any sustainability plan.

Metro Atlanta residents face the fourth longest commutes in the nation. Individuals driving alone account for nearly 70% of all these lengthy trips. It will be necessary to significantly reduce the number of people driving alone in order to achieve the goals outlined in The City of Atlanta's Transportation Plan, which aims to create a transportation system that can support 1.3 million residents and 1.2 million jobs in the City in the coming decades without significant roadway expansions. Transportation demand management is a necessary component of ensuring that the City of Atlanta can continue to be

prosperous. Providing more and better opportunities for a clean commute is key to addressing sustainability and reducing emissions. To accomplish this, CAP/ADID will work with local partners to enhance electric vehicle infrastructure, expand public transportation options, and utilize new technologies to increase the efficiency of the Downtown transportation network.

Advance Clean Commutes through a Multimodal Approach

Strategy 5.1: Advance clean and resilient commuting by supporting a multimodal transportation system

Reducing commute times and greenhouse gas emissions from vehicle usage begins with taking stock of how people commute to work Downtown and designing a multimodal solution to tackle this issue.

Downtown is home to more than 25% of the jobs in the City of Atlanta. Only 1.3% of Downtown employees live and work Downtown; the remaining 98.7% of Downtown employees commute to Downtown. The current mode split for Downtown commuters is:

Mode	Percentage
Driving alone	58%
Rail	19%
Walk	9%
Telework	6%
Local bus	3%
Carpool/vanpool	2%
Express bus	2%
Bicycle	2%

Table 4. Commute mode split in Downtown (Source: 2017 Downtown Transportation Plan)

The share of people driving alone to work Downtown is one of the lowest in the Atlanta metro region, and CAP/ADID aim to reduce that percentage even further. The 2017 Downtown Transportation Plan set a goal to keep the drive-alone trips static while increasing commutes by other modes:

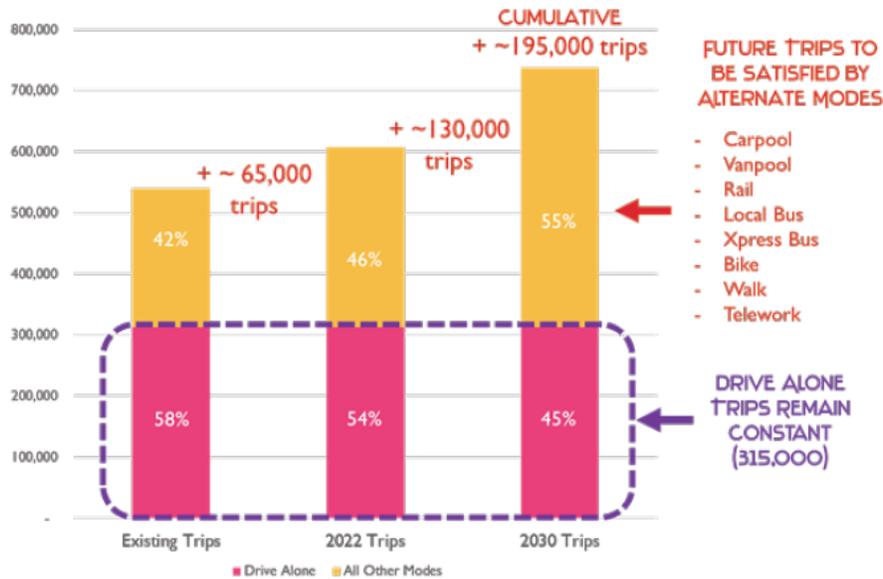


Fig. 4. The 2017 Downtown Transportation Plan aims to reduce the share of drive-alone trips

CAP/ADID promotes clean commutes by running the Downtown Transportation Management Association (TMA) as well as advocating for expansive transportation policies and local infrastructure improvements to support multiple modes.

Since 2002, CAP/ADID have managed a successful Transportation Demand Management (TDM) program called Downtown Connects. The Downtown Connects program has 90 employers currently enrolled and distributes 2800+ transit passes each month. By shifting commuters from driving alone to clean commute modes such as rail, bus, carpool, bike, and telecommute, this program saves over 25M vehicle miles traveled (VMT) each year. Deploying worksite TDM strategies is largely voluntary and focused on marketing. However, CAP/ADID plans to expand the focus of its TDM program in the near future to building-level infrastructure and policy-based efforts that will move the needle on expanding TDM options and commute behavior change in the City of Atlanta.

The 2017 Downtown Atlanta Transportation Plan and Master Plan identified key strategies for improving clean commute options, including improving street design, growing the Downtown bicycle network, improving transit options, and pushing for policy changes to support a multimodal and accessible transportation network.

In 2018, CAP/ADID worked with the City and several intown TMAs to further explore policies that would continue to support a multimodal transportation system. This study recommended the following strategies:

- Managing parking
- Requiring and incentivizing employers to support employees' use of alternative modes of transportation
- Enhancing communications through social media and public outreach to encourage an increased use of alternatives to driving alone commuting.
- Creating a TDM program for City of Atlanta employees
- Adding TDM requirements in the Development Review Process

CAP/ADID have actively worked to advance the transportation goals from these recent studies and are in ongoing communications with the City of Atlanta and local stakeholders to collaborate on and advance these strategies. Below is a snapshot of the progress to date:

Projects	Status
Improving Street Design	
Improving street design to support multimodal travel	CAP/ADID have been working closely with Newport US RE to develop conceptual designs for street enhancements in South Downtown in order to advance multimodal mobility and access improvements for Martin Luther King Jr. Drive, Mitchell Street, Peachtree Street and Broad Street.
High-Quality Bicycle Network	
Improving the Downtown bike network	The Luckie St PATH opened in December 2018. This connects the bike network on the Georgia Tech campus to the Portman PATH by way of a separated bike facility along Baker St and Centennial Olympic Park Dr. CAP/ADID continues to collaborate with the City on planning for additional facilities through the Mayor's Action Plan for Safer Streets Across Atlanta.
Transit Enhancements	
Funding for transit enhancements	CAP/ADID frequently engages in conversation with MARTA and the City of Atlanta regarding using funds from More MARTA and Renew Atlanta to improve MARTA assets.
Improving Downtown MARTA stations	CAP/ADID hosted a stakeholder meeting with South Downtown developers, the City of Atlanta, and MARTA to discuss planned improvements at the Five Points MARTA station. A general station concept has been developed and basic feasibility exploration will wrap up in the fall of 2020 before entering into design. MARTA intends to transform the station by the end of 2025.

	CAP/ADID will study the feasibility of creating an off-street bus facility at the Civic Center MARTA station to improve operations at that station as well as the bus network throughout Downtown.
Dedicated Bus Corridors	<p>CAP/ADID's <i>Downtown Commuter Bus Service Route Consolidation Study</i> is currently underway and will identify opportunities to streamline regional bus routes in the Downtown area and improve service.</p> <p>The 2017 Downtown Transportation Plan recommended creating a bus priority corridor on Peachtree Center Avenue. Dedicated bus corridors are a priority, and CAP/ADID was awarded an LCI grant to advance design of a north-south bus corridor. This study will build upon the Route Consolidation study mentioned above and will result in a GDOT Concept Report to advance construction of a high quality bus facility.</p>
Parking Management	
Parking management, parking pricing, parking cash-out	The City of Atlanta is currently studying programs that seek to change parking management and pricing, as well as policy to require employers to implement parking 'cash-out' programs. CAP/ADID is actively involved in this work and is eager to roll out these policies in Downtown.
Instituting a Parking Tax	As noted above, CAP/ADID is actively involved in advancing parking policy. CAP/ADID is currently working on a Parking Tax Feasibility Study in partnership with the City of Atlanta. The study will conclude in December of 2020.
Transportation Demand Management	
Improving messaging	CAP/ADID is collaborating with Georgia Commute Options and other TMAs to create a strategic communications plan that will develop key messaging for communicating the need for transportation policies that optimize our current alternative transportation infrastructure.
Broadening transit partners	CAP/ADID is exploring opportunities to increase the number and type of partners who participated in Downtown Connects. In 2020, CAP/ADID focused on relationship building with large institutional partners, including the City of Atlanta as an employer, and Downtown Connects rolled out a hospitality industry focused TDM program

Commuter benefits	CAP/ADID continue to work with partners at the City of Atlanta, Midtown, and Buckhead to explore options for a Commuter Benefits Ordinance.
Curbside Management and Enforcement	
Curbside Management Study	In 2020, CAP/ADID will work with Midtown Alliance to develop a curbside management strategy that will encompass a suite of solutions aimed at managing the many competing priorities in Downtown’s valuable curb space.
Land Use Policies	
Zoning & DRI review	CAP/ADID are working to strengthen the SPI-1 Downtown zoning requirements and the Development of Regional Impact (DRI) process so that developers over a certain square footage threshold are required to submit Transportation Management Plans to demonstrate transit accommodations on their site. These changes are anticipated to be implemented by the end of 2020.

Table 5. Status of 2017 Downtown Transportation Plan projects

CAP/ADID will continue to advance these strategies and implement the goals of the 2017 Downtown Transportation Plan.

However, there are a few ways that CAP/ADID can add to the work listed above in Table 5:

Double down on efforts to shift mode split	CAP/ADID can further invest in efforts to shift commuting from single-occupancy vehicles to other modes.
Report on associated emissions reductions	It is beneficial to draw the connection between transportation infrastructure updates and environmental impacts by reporting on the resulting emissions reductions.
Coordinate the commute survey effort with other sustainability efforts	Coordinate transportation surveying efforts with pre-existing networks and outreach efforts in the sustainability field, like a LEED or fitwel survey, to collect additional data points.
Promote equity in order to design a more resilient transportation system	In the process of designing strategies to enhance access to transportation options, community members emphasized the importance of meeting the needs of the “transit dependent” population first, before layering on services for “choice riders.”

Table 6. Strategies to support Transportation Plan

As storms increase in frequency and severity, Atlanta’s transportation network will be impacted. ARC is in the process of a conducting an infrastructure resilience study which

aims to evaluate the expected impact of climate change on Atlanta's. Initial simulations demonstrate that flooding will impact commutes and, thus, business' bottom line.

CAP/ADID will collaborate with Georgia Department of Transportation (GDOT), the Federal Highway Administration (FHWA), and the City to further explore resilience as it relates to transportation.

Strategy 5.2: Design streets, streetscapes and other surfaces with sustainability in mind

A high percentage of Downtown has impervious surfaces, particularly in the heart of the central business district. CAP/ADID can pursue strategies to reduce the amount of impervious surface area, such as adopting green streets and working with property owners – particularly those that own surface parking lots – to increase permeability by adding more vegetation or exploring the use of materials that absorb stormwater.

Green streets are an effective approach to addressing stormwater challenges. A green street is a stormwater management approach that incorporates vegetation, soil, and engineered systems (e.g., permeable pavements) to slow, filter, and cleanse stormwater runoff from impervious surfaces (e.g., streets, sidewalks). Streets are traditionally designed to direct stormwater runoff from impervious surfaces into storm sewer systems that discharge directly into surface waters, rivers, and streams, whereas green streets are designed to capture rainwater where it falls.

CAP can explore the cost and environmental impact of a widespread effort to install green streets. The Georgia World Congress Center could be an ideal location for an initial showcase of this type of green infrastructure.

A key first step in this effort is identifying the areas of greatest need and those that provide the greatest opportunities for investment. This should be done with equity at the forefront of the conversation. CAP/ADID can use and build on the data produced by the 2018 Georgia Tech Sustainable Cities studio to understand the optimal locations for green infrastructure. Once locations have been identified, CAP/ADID will engage the newly-formed Department of Transportation at the City of Atlanta to explore converting existing streets in Downtown to green streets.

Conclusion

Downtown Atlanta is the heart of the City. It is the seat of city, county, and state government; it is home to students and residents; it is the gravitational center of the economic engine of the region; it is the gathering place for celebrations and political demonstrations. Investing in strategies that can protect natural resources while also

ensuring economic vibrancy can position Downtown as a place of innovation and of stewardship. The strategies in this plan can improve the quality of life for residents, visitors and employees by promoting health, clean air, public space, and walkability.

Implementation of this plan is already underway. CAP/ADID are in the process of developing a tree planting plan for Downtown, and conducting a stormwater study in conjunction with an urban design studio at Georgia Tech. A survey was conducted in summer 2020 to understand commercial property managers' priorities in response to the COVID-19 pandemic, to inform CAP/ADID's strategy for promoting energy and water efficiency. Funding is being pursued to implement the ideas from this plan that have not yet been initiated. As a major convener in the Downtown space, CAP/ADID is committed to advancing the goals outlined in this Sustainability Action Plan and welcoming others to the table.

Appendix

Advisory Committee

Committee Member	Organization
Jon Philipsborn	AECOM
Carly Queen	AECOM
Daniela Galeano	American Rivers
Jenny Hoffner	American Rivers
Abbey Patterson	Atlanta Recycles
Crystal Jackson	Atlanta Regional Commission
Kelsey Waidhas	Atlanta Regional Commission
Dawn Marx	Banyan Street Capital (representing Peachtree Center)
Walter Brown	Bright Sun Community Solutions (representing Newport US RE)
Jessica Lavandier	City of Atlanta – Department of City Planning (DCP)
Nate Hoelzel	City of Atlanta – Department of City Planning (DCP)
Julie Owens	City of Atlanta – Department of Watershed Management (DWM)
Shelby Busó	City of Atlanta – Office of Resilience (OOR), U.S. Green Building Council (USGBC)
Mario Cambardella	City of Atlanta – Office of Resilience (OOR)
Natasha Dyer	City of Atlanta – Office of Resilience (OOR)
John R. Seydel	City of Atlanta – Office of Resilience (OOR)
Kate Taber	City of Atlanta – Office of Resilience (OOR)
Michelle Wiseman	City of Atlanta – Office of Resilience (OOR)
Scott DeMyer	Colliers (representing Peachtree Center)
Liza Mueller	Georgia Conservancy
Jenni Asman	Georgia State University Office of Sustainability
Lenore Musick	Georgia State University Office of Sustainability
Jairo Garcia	Georgia Tech
Miranda Kaufman	Georgia Tech
Evan Mallen	Georgia Tech
Tim Trefzer	Georgia World Congress Center Association (GWCCA)
Brandon Ley	Joystick Gamebar and Georgia Beer Garden
Johnny Martinez	Joystick Gamebar and Georgia Beer Garden
Katie Gregory	McGuire Woods
Natalie Simpson	Metro Atlanta Chamber
Sarah Skinner	Metro North Georgia Water Planning District (MNGWPD)
Ann Kennedy	Perkins+Will (representing Atlanta First United Methodist Church)

Katie Plazyk	Portman Management Company (representing SunTrust Plaza Garden Offices)
Cecilia Shuttters	Recycling Partnership
Joe Winslow	Southface Institute
Stacy Funderburke	The Conservation Fund
Max Mandelis	Transwestern
Mike Vinciguerra	Trees Atlanta
George Dusenbury	Trust for Public Land
Jean-Ann James	Turner Foundation
Tashe Graves	Zeller Realty Group (representing 100 Peachtree)